

**PATENT****Application # 10/622,259****Attorney Docket # 2002P20760US01 (1009-029)****REMARKS**

The Examiner is respectfully thanked for the consideration provided to this application. Reconsideration of this application is respectfully requested in light of the foregoing amendments and the following remarks.

Each of claims 1-9, 14, 18, and 26 has been amended for at least one reason unrelated to patentability, including at least one of: to explicitly present one or more elements implicit in the claim as originally written when viewed in light of the specification, thereby not narrowing the scope of the claim; to detect infringement more easily; to enlarge the scope of infringement; to cover different kinds of infringement (direct, indirect, contributory, induced, and/or importation, etc.); to expedite the issuance of a claim of particular current licensing interest; to target the claim to a party currently interested in licensing certain embodiments; to enlarge the royalty base of the claim; to cover a particular product or person in the marketplace; and/or to target the claim to a particular industry.

Claims 1-32 are now pending in this application. Each of claims 1, 2, 9, 14, and 26 are in independent form.

**A. The Claim Rejections**

Each of claims 1-8, 14-17, 19-22, 26, and 28 was rejected as anticipated under 35 U.S.C. 102(b). In support of the rejection, various portions of U.S. Patent No. 5,649,001 ("Thomas") were applied. These rejections are respectfully traversed.

Each of claims 9-13, 18, 23-25, 27, and 29-32 was rejected under 35 U.S.C. 103(a) as being unpatentable over various combinations of Thomas, *Token Ring/IEEE 802.5*, Cisco Systems, Feb. 20, 2002 ("Cisco Systems"), U.S. Patent No. 6,978,319 ("Rostoker"), and/or U.S. Patent Publication No. 20030167391 ("Al-Ali"). Each of these rejections is respectfully traversed.

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**I. Legal Standards****1. *Prima Facie* Criteria for an Express Anticipation Rejection**

To establish a *prima facie* case of express anticipation, the "invention must have been known to the art in the detail of the claim; that is, all of the elements and limitations of the claim must be shown in a single prior art reference, arranged as in the claim". *Karsten Mfg. Corp. v. Cleveland Golf Co.*, 242 F.3d 1376, 1383, 58 USPQ2d 1286, 1291 (Fed. Cir. 2001); *See also* MPEP 2131. The single reference must describe the claimed subject matter "with sufficient clarity and detail to establish that the subject matter existed in the prior art and that its existence was recognized by persons of ordinary skill in the field of the invention". *Crown Operations Int'l, LTD v. Solutia Inc.*, 289 F.3d 1367, 1375, 62 USPQ2d 1917, 1921 (Fed. Cir. 2002). Moreover, the prior art reference must be sufficient to enable one with ordinary skill in the art to practice the claimed invention. *In re Borst*, 345 F.2d 851, 855, 145 USPQ 554, 557 (CCPA 1965), *cert. denied*, 382 U.S. 973 (1966); *Amgen, Inc. v. Hoechst Marion Roussel, Inc.*, 314 F.3d 1313, 1354, 65 USPQ2d 1385, 1416 (Fed. Cir. 2003) ("A claimed invention cannot be anticipated by a prior art reference if the allegedly anticipatory disclosures cited as prior art are not enabled.")

The USPTO "has the initial duty of supplying the factual basis for its rejection." *In re Warner*, 379 F.2d 1011, 154 USPQ 173, 178 (CCPA 1967).

**2. *Prima Facie* Criteria for an Obviousness Rejection**

"To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach... all the claim limitations." *See* MPEP § 2143.

Moreover, the "Patent Office has the initial duty of supplying the factual basis for its rejection." *In re Warner*, 379 F.2d 1011, 154 USPQ 173, 178 (CCPA 1967), *cert. denied*, 389

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U.S. 1057, *reh'g denied*, 390 U.S. 1000 (1968). "It may not... resort to speculation, unfounded assumptions or hindsight reconstruction to supply deficiencies in its factual basis". *Id.*

It is legal error to utilize to "substitute[] supposed per se rules for the particularized inquiry required by section 103. It necessarily produces erroneous results." *See In re Ochiai*, 71 F.3d 1565, 1571, 37 USPQ2d 1127, 1132-33 (Fed. Cir. 1998); *In re Wright*, 343 F.2d 761, 769-770, 145 USPQ 182, 190 (CCPA 1965).

"Once the examiner... carries the burden of making out a prima facie case of unpatentability, 'the burden of coming forward with evidence or argument shifts to the applicant.'" *In re Alton*, 76 F.3d 1168, 37 USPQ2d 1578 (Fed. Cir. 1996) (*quoting In re Oetiker*, 977 F.2d at 1445, 24 USPQ2d at 1444).

**3. Claim Construction**

Before the *prima facie* obviousness criteria can be applied, the words of each claim must be interpreted. Federal Circuit, in *Phillips v. AWH Corp.*, 415 F.3d 1303, 75 USPQ2d 1321 (Fed. Cir. 2005) (*en banc*), *cert. denied*, 2006 U.S. LEXIS 1154 (U.S. Feb. 21, 2006) has clarified that:

1. "[t]he Patent and Trademark Office ('PTO') determines the scope of claims in patent applications not solely on the basis of the claim language, but upon giving claims their broadest reasonable construction 'in light of the specification as it would be interpreted by one of ordinary skill in the art'" (*Id.* at 1316);
2. the words of a claim "are generally given their ordinary and customary meaning" (*Id.* at 1312);
3. the ordinary and customary meaning of a claim term is "the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention, i.e., as of the effective filing date of the patent application" (*Id.* at 1313);
4. "the person of ordinary skill in the art is deemed to read the claim term not only in the context of the particular claim in which the disputed term appears, but in the context of the entire patent, including the specification" (*Id.*);
5. even "the context in which a term is used in the asserted claim can be highly

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instructive" (*Id.* at 1314);

6. "the specification may reveal a special definition given to a claim term by the patentee that differs from the meaning it would otherwise possess. In such cases, the **inventor's lexicography governs**" (*Id.* at 1316);
7. even "when guidance is not provided in explicit definitional format, the **specification may define claim terms by implication** such that the meaning may be found in or ascertained by a reading of the patent documents" (*Id.* at 1321);
8. an "invention is construed not only in the light of the claims, but also with reference to the file wrapper or prosecution history in the Patent Office" (*Id.* at 1317 (*citing Graham v. John Deere Co.*, 383 U.S. 1, 33 (1966))); and

the "prosecution history... consists of the complete record of the proceedings before the PTO and includes the prior art cited during the examination of the patent" (*Id.* at 1317).

#### **4. Motivation or Suggestion to Combine References**

"The examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness." MPEP 2142. The requirements for fulfilling this burden are explicit and straightforward.

"[T]he examiner **must show reasons** that the skilled artisan, **confronted with the same problems** as the inventor and with no knowledge of the claimed invention, **would select the elements** from the cited prior art references for combination **in the manner claimed**" (emphasis added). *In re Rouffet*, 149 F.3d 1350, 1357, 47 USPQ2d 1453, 1458 (Fed. Cir. 1998). To show these reasons, "[p]articular findings must be made". *In re Kotzab*, 217 F.3d 1365, 1371, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000). Such factual findings must be supported by "concrete evidence in the record". *In re Zurko*, 258 F.3d 1379, 1385-86, 59 USPQ2d 1693, 1697 (Fed. Cir. 2001).

Moreover, a showing of combinability must be "clear and particular". *In re Dembiczak*, 175 F.3d 994, 999, 50 USPQ2d 1614, 161(Fed. Cir. 1999). That strong showing is needed because, "**obviousness requires proof** 'that the skilled artisan . . . would select the elements from the cited prior art references for combination in the manner claimed'". *In re Johnston*, 435

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F.3d 1381 (Fed. Cir. 2006) (quotation omitted) (emphasis added).

Consequently, an Office Action must clearly and objectively prove that the applied references are “reasonably pertinent to the **particular** problem with which the invention was involved”. See *Ruiz v. A.B. Chance Co.*, 234 F.3d 654, 664, 57 USPQ2d 1161, 1166 (Fed. Cir. 2000); *Stratoflex, Inc. v. Aeroquip Corp.*, 713 F.2d 1530, 1535, 218 USPQ 871, 876 (Fed. Cir. 1983); and *Monarch Knitting Machinery Corp. v. Sulzer Morat GmbH*, 139 F.3d 877, 881-83, 886, 45 USPQ2d 1977, 1981-82, 1985 (Fed. Cir. 1998).

In addition, “[t]he patent examination process centers on prior art and the analysis thereof. When patentability turns on the question of obviousness, the search for and analysis of the prior art includes evidence relevant to the finding of whether there is a teaching, motivation, or suggestion to select and combine the references relied on as evidence of obviousness.” *In re Sang-Su Lee*, 277 F.3d 1338, 1342, 61 USPQ2d 1430, 1433 (Fed. Cir. 2002). Thus, the Office Action must clearly and objectively prove some “suggestion, motivation, or teaching in the prior art that would have led a person of ordinary skill in the art to”:

“select the references”;

“select the teachings of [the] separate references”; and

“combine [those teachings] in the way that would produce the claimed” subject matter.

*In re Johnston*, 435 F.3d 1381 (Fed. Cir. 2006) (internal citations omitted). See also *In re Dance*, 160 F.3d 1339, 1343, 48 USPQ2d 1635, 1637 (Fed. Cir. 1998) (discussing the “the test of whether it would have been obvious to select **specific** teachings and combine them as did the applicant”) (emphasis added); and *Interconnect Planning Corp. v. Feil*, 774 F.2d 1132, 1143, 227 USPQ 543, 551 (Fed. Cir. 1985) (“When prior art references require selective combination... to render obvious a subsequent invention, there must be some reason for the combination other than the hindsight gleaned from the invention itself.”). “The absence of . . . a suggestion to combine is dispositive in an obviousness determination.” *Gambro Lundia AB v. Baxter Healthcare Corp.*, 110 F.3d 1573, 1579, 42 USPQ2d 1378, 1383 (Fed. Cir. 1997).

Further, this obviousness standard applies regardless of whether the Office Action relies upon modifying or combining purported teachings.

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Although couched in terms of combining teachings found in the prior art, the same inquiry must be carried out in the context of a purported obvious modification of the prior art. The mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggested the **desirability** of the modification ... It is impermissible to use the claimed invention as an instruction manual or 'template' to piece together the teachings of the prior art so that the claimed invention is rendered obvious. This court has previously stated that '[o]ne cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention.'

*In re Fritch*, 972 F.2d 1260, 23 USPQ 2d 1780, 1783-1784 (Fed. Cir. 1992) (citing *In re Gorman*, 933 F.2d 982, 987, 18 USPQ2d 1885, 1888 (Fed. Cir. 1991); *Interconnect Planning Corp. v. Feil*, 774 F.2d 1132, 1138, 227 USPQ 543, 547 (Fed. Cir. 1985); and *In re Fine*, 837 F.2d 1071, 1075, 5 USPQ 2d 1596, 1600 (Fed. Cir. 1988) (internal quotations omitted) (emphasis added)).

Therefore, the Office Action also must clearly and objectively prove that the "prior art suggested the **desirability**" of that modification or combination. See also *Akamai Techs. v. Cable & Wireless Internet Servs.*, 344 F.3d 1186, 68 USPQ 2d 1186 (Fed. Cir. 2003) ("[w]hen determining the patentability of a claimed invention which combines two known elements, the question is whether there is something in the prior art as a whole to suggest the **desirability**, and thus the obviousness, of making the combination") (emphasis added).

#### **5. Finality of Office Actions**

If an Office Action fails to set forth sufficient facts to provide a *prima facie* basis for the rejections, any future rejection based on the applied reference will necessarily be factually based on an entirely different portion of that reference, and thus will be legally defined as a "new grounds of rejection." Consequently, any Office Action containing such rejection can not properly be made final. See *In re Wiechert*, 152 USPQ 247, 251-52 (CCPA 1967) (defining "new ground of rejection" and requiring that "when a rejection is factually based on an entirely

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different portion of an existing reference the appellant should be afforded an opportunity to make a showing of unobviousness vis-a-vis such portion of the reference”), and *In re Warner*, 379 F.2d 1011, 154 USPQ 173, 178 (CCPA 1967) (the USPTO “has the initial duty of supplying the factual basis for its rejection”).

**II. Analysis****1. All Claims - Claim Construction**

In the present Application, the customary meaning for the phrase “Programmable Logic Controller” is implicitly defined in the specification and the cited art. That definition must control examination of those claims that recite this phrase.

At least at paragraph 2, the specification of the present Application implicitly defines the term “Programmable Logic Controller (PLC)” by stating that:

[c]ontrol systems, for example those utilizing computers such as programmable logic controllers (PLCs), can control a broad number and type of devices, including alarms, indicators, actuators, motors, relays, and even input devices, such as sensors. Sometimes, such PLC’s are located in remote locations, some of which are accessible via a cellular communications network.

Included herewith is a Declaration under 37 C.F.R. § 1.132 of Dr. Ronald D. Williams, one skilled in the art of electrical engineering as of 23 December 2002, the priority date claimed by the present application. Paragraphs 14-22 of Dr. Williams’ Declaration provide definitions for the claim phrase “programmable logic controller”.

Thus, the phrase “programmable logic controller” should be construed as one of ordinary skill in the relevant art would interpret that phrase. For the purpose of interpreting a claim of any patent that claims priority hereto, each definition (or redefined term if an original definition was amended during the prosecution of that patent), functions as a clear and unambiguous disavowal of the subject matter outside of that definition.

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The applied portions of Thomas do not establish a prima facie case of anticipation regarding claim 1. Claim 1 recites, *inter alia*, “a programmable cable comprising a first end connectable to a **programmable logic controller (PLC)** and a second end connectable to said cellular telephone modem, said programmable cable adapted to communicatively couple said PLC and said cellular telephone modem”.

Paragraphs 23-29 of Dr. Williams’ Declaration provide expert evidence that the applied portions of Thomas do not teach “a programmable cable comprising a first end connectable to a **programmable logic controller (PLC)** and a second end connectable to said cellular telephone modem, said programmable cable adapted to communicatively couple said PLC and said cellular telephone modem”.

Accordingly, it is respectfully submitted that the rejection of claims 1 is unsupported by Thomas and should be withdrawn.



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The applied portions of Thomas do not establish a *prima facie* case of anticipation regarding claim 2. *Inter alia*, claim 2, upon which each of claims 3-8 depends, recites, "a programmable cable comprising a first end connectable to and communicable with a **programmable logic controller (PLC)** and a second end connectable to a network communications device, said programmable cable adapted to communicatively couple said PLC and said network communications device, the network communications device further couplable to a user interface device".

Paragraphs 23-29 of Dr. Williams' Declaration provide expert evidence that the applied portions of Thomas do not teach "a programmable cable comprising a first end connectable to and communicable with a **programmable logic controller (PLC)** and a second end connectable to a network communications device, said programmable cable adapted to communicatively couple said PLC and said network communications device, the network communications device further couplable to a user interface device".

Accordingly, it is respectfully submitted that the rejection of claims 1 is unsupported by Thomas and should be withdrawn. Also, the rejection of claims 2-8, each ultimately depending from independent claim 1, is unsupported by Thomas and also should be withdrawn.

**4. Claim 9**

The combination of the applied portions of Thomas and Cisco Systems do not establish a *prima facie* case of obviousness regarding claim 9. Claim 9, upon which each of claims 10-13 depend, recites, *inter alia*, "a programmable cable comprising, a first end connectable to a network couplable to a **programmable logic controller (PLC)**, and a second end connectable to a network communications device; the network communications device further couplable to a user interface device, the PLC communicable with said user interface using said programmable cable".

Paragraphs 23-29 of Dr. Williams' Declaration provide expert evidence that the applied portions of Thomas do not teach "a programmable cable comprising, a first end connectable to a network couplable to a **programmable logic controller (PLC)**, and a second end connectable to

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a network communications device; the network communications device further couplable to a user interface device, the PLC communicable with said user interface using said programmable cable". The applied portions of Cisco Systems fail to cure at least these deficiencies of the applied portions of Thomas.

Thus, even if there were motivation or suggestion to modify or combine the applied portions of the references relied upon in the Office Action (an assumption that is respectfully traversed), and even if there were a reasonable expectation of success in combining or modifying the applied portions of the references relied upon in the Office Action (another assumption that is respectfully traversed), the applied portions of the references relied upon in the Office Action, **as attempted to be modified and/or combined**, still do not expressly or inherently teach every limitation of the independent claims, and consequently fail to establish a *prima facie* case of obviousness. Consequently, for at least the reasons mentioned above, reconsideration and withdrawal of these rejections is respectfully requested.

The present Office Action presents **legally insufficient evidence**, of any "suggestion, motivation, or teaching in the prior art that would have led a person of ordinary skill in the art to":

1. "select the references";
2. "select the teachings of [the] separate references"; or
3. "combine [those teachings] in the way that would produce the claimed" subject matter.

Moreover, the present Office Action presents **legally insufficient evidence of anything** "in the prior art as a whole to suggest the **desirability**, and thus the obviousness, of making the **combination**."

Instead, regarding the proffered combination of Thomas and Cisco Systems, the present Office Action, at Page 8 recites:

[i]t would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify Thomas with the above teachings of Cisco Systems. One of ordinary skill in the art would have been motivated to make

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such modification in order to allow reduce collisions of data on network (Section: Review Questions).

Applicant respectfully asks where is any "suggestion, motivation, or teaching in the prior art that would have led a person of ordinary skill in the art to":

1. "select the references"?
2. "select the teachings of [the] separate references"?
3. "combine [those teachings] in the way that would produce the claimed" subject matter?

Applicant respectfully submits that no such evidence has been presented. Thus, the present Office Action fails to establish a *prima facie* case of obviousness regarding claim 9. Accordingly, Applicant respectfully requests a withdrawal of the rejection of claim 9.

**5. Claim 10**

The combination of the applied portions of Thomas and Cisco Systems do not establish a *prima facie* case of obviousness regarding claim 10. Since claim 10 depends upon independent claim 9, Applicant respectfully incorporates by reference each and every argument regarding claim 9 presented, *supra*.

The present Office Action presents no evidence regarding the additional subject matter of claim 10, of any "suggestion, motivation, or teaching in the prior art that would have led a person of ordinary skill in the art to":

1. "select the references";
2. "select the teachings of [the] separate references"; or
3. "combine [those teachings] in the way that would produce the claimed" subject matter.

Thus, the present Office Action fails to establish a *prima facie* case of obviousness regarding claim 10. Accordingly, Applicant respectfully requests a withdrawal of the rejection of claim 10.

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The combination of the applied portions of Thomas and Cisco Systems do not establish a *prima facie* case of obviousness regarding claim 11. Since claim 11 depends upon independent claim 9, Applicant respectfully incorporates by reference each and every argument regarding claim 9 presented, *supra*.

The present Office Action presents **no evidence regarding the additional subject matter of claim 11**, of any "suggestion, motivation, or teaching in the prior art that would have led a person of ordinary skill in the art to":

1. "select the references";
2. "select the teachings of [the] separate references"; or
3. "combine [those teachings] in the way that would produce the claimed" subject matter.

Thus, the present Office Action fails to establish a *prima facie* case of obviousness regarding claim 11. Accordingly, Applicant respectfully requests a withdrawal of the rejection of claim 11.

**7. Claim 12**

The combination of the applied portions of Thomas and Cisco Systems do not establish a *prima facie* case of obviousness regarding claim 12. Since claim 12 depends upon independent claim 9, Applicant respectfully incorporates by reference each and every argument regarding claim 9 presented, *supra*.

The present Office Action presents **no evidence regarding the additional subject matter of claim 12**, of any "suggestion, motivation, or teaching in the prior art that would have led a person of ordinary skill in the art to":

1. "select the references";
2. "select the teachings of [the] separate references"; or
3. "combine [those teachings] in the way that would produce the claimed" subject matter.

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Thus, the present Office Action fails to establish a *prima facie* case of obviousness regarding claim 12. Accordingly, Applicant respectfully requests a withdrawal of the rejection of claim 12.

**8. Claim 13**

The combination of the applied portions of Thomas, Cisco Systems, and Rostoker do not establish a *prima facie* case of obviousness regarding claim 13. Since claim 13 depends upon independent claim 9, Applicant respectfully incorporates by reference each and every argument regarding claim 9 presented, *supra*.

The present Office Action presents **legally insufficient evidence**, of any "suggestion, motivation, or teaching in the prior art that would have led a person of ordinary skill in the art to":

1. "select the references";
2. "select the teachings of [the] separate references"; or
3. "combine [those teachings] in the way that would produce the claimed" subject matter.

Moreover, the present Office Action presents **legally insufficient evidence of anything** "in the prior art as a whole to suggest the **desirability**, and thus the obviousness, of making the **combination**."

Instead, regarding the proffered combination of Thomas and Cisco Systems with Rostoker, the present Office Action, at Page 8 recites:

[i]t would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify the combination of Thomas and Cisco with the above teachings of Rostoker et al. One of ordinary skill in the art would have been motivated to make such modification in order to allow for 'plug-and-play' further allowing transparency on the user end (column 2, lines 63-67).

Applicant respectfully asks where is any "suggestion, motivation, or teaching in the prior art that would have led a person of ordinary skill in the art to":

1. "select the references"?

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2. "select the teachings of [the] separate references"?
3. "combine [those teachings] in the way that would produce the claimed" subject matter?

Thus, the present Office Action fails to establish a *prima facie* case of obviousness regarding claim 13. Accordingly, Applicant respectfully requests a withdrawal of the rejection of claim 13.

**9. Claims 14-25**

The applied portions of Thomas do not establish a *prima facie* case of anticipation regarding claim 14. *Inter alia*, claim 14, upon which each of claims 15-25 depends, recites, "providing a programmable cable comprising a first end and a second end, the first end connectable to a **programmable logic controller (PLC)**, the second end connectable to a cellular telephone modem, a user interface device couplable to a network comprising the programmable cable, the PLC, and the cellular telephone modem, said programmable cable adapted to communicatively couple said PLC and said cellular telephone modem".

Paragraphs 23-29 of Dr. Williams' Declaration provide expert evidence that the applied portions of Thomas do not teach "providing a programmable cable comprising a first end and a second end, the first end connectable to a **programmable logic controller (PLC)**, the second end connectable to a cellular telephone modem, a user interface device couplable to a network comprising the programmable cable, the PLC, and the cellular telephone modem, said programmable cable adapted to communicatively couple said PLC and said cellular telephone modem".

Accordingly, it is respectfully submitted that the rejection of claims 14 is unsupported by Thomas and should be withdrawn. Also, the rejection of claims 15-25, each ultimately depending from independent claim 14, is unsupported by Thomas and also should be withdrawn.

**10. Claim 18**

The combination of the applied portions of Thomas and Cisco Systems do not establish a *prima facie* case of obviousness regarding claim 18. Since claim 18 depends upon independent

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claim 14, Applicant respectfully incorporates by reference each and every argument regarding claim 14 presented, *supra*.

Claim 18 recites, yet the present Office Action fails to allege that any applied portion of any relied upon reference teaches "via the user interface device through the network, setting at least one of a plurality of programmable cable configuration parameters comprising: a mode of operation, a PPI protocol, a cable locality mode, a data transfer speed, a communication language, and an identifying PIN number."

The present Office Action presents **legally insufficient evidence**, of any "suggestion, motivation, or teaching in the prior art that would have led a person of ordinary skill in the art to":

1. "select the references";
2. "select the teachings of [the] separate references"; or
3. "combine [those teachings] in the way that would produce the claimed" subject matter.

Moreover, the present Office Action presents **legally insufficient evidence of anything** "in the prior art as a whole to suggest the **desirability**, and thus the obviousness, of making the **combination**."

Instead, regarding the proffered combination of Thomas and Cisco Systems, the present Office Action, at Page 8 recites:

[i]t would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify Thomas with the above teachings of Cisco Systems. One of ordinary skill in the art would have been motivated to make such modification in order to allow reduce collisions of data on network (Section: Review Questions).

Applicant respectfully asks where is any "suggestion, motivation, or teaching in the prior art that would have led a person of ordinary skill in the art to":

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1. "select the references"?
2. "select the teachings of [the] separate references"?
3. "combine [those teachings] in the way that would produce the claimed" subject matter?

Applicant respectfully submits that no such evidence has been presented. Thus, the present Office Action fails to establish a *prima facie* case of obviousness regarding claim 18. Accordingly, Applicant respectfully requests a withdrawal of the rejection of claim 18.

**11. Claim 23**

The combination of the applied portions of Thomas and Al-Ali do not establish a *prima facie* case of obviousness regarding claim 23. Since claim 23 depends upon independent claim 14, Applicant respectfully incorporates by reference each and every argument regarding claim 14 presented, *supra*.

*Inter alia*, claim 23 recites, yet the present Office Action fails to allege that any applied portion of any relied upon reference teaches, "encrypting communications between the user interface device and the PLC."

Thus, even if there were motivation or suggestion to modify or combine the applied portions of the references relied upon in the Office Action (an assumption that is respectfully traversed), and even if there were a reasonable expectation of success in combining or modifying the applied portions of the references relied upon in the Office Action (another assumption that is respectfully traversed), the applied portions of the references relied upon in the Office Action, **as attempted to be modified and/or combined**, still do not expressly or inherently teach every limitation of the independent claims, and consequently fail to establish a *prima facie* case of obviousness. Consequently, for at least the reasons mentioned above, reconsideration and withdrawal of these rejections is respectfully requested.

The present Office Action presents **legally insufficient evidence**, of any "suggestion, motivation, or teaching in the prior art that would have led a person of ordinary skill in the art to":

1. "select the references";



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2. "select the teachings of [the] separate references"; or
3. "combine [those teachings] in the way that would produce the claimed" subject matter.

Moreover, the present Office Action presents **legally insufficient evidence of anything** "in the prior art as a whole to suggest the **desirability**, and thus the obviousness, of making the **combination**."

Instead, regarding the proffered combination of Thomas and Al-Ali, the present Office Action, at Pages 10-11 recites:

[i]t would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify Thomas with the above teachings of Al-Ali. One of ordinary skill in the art would have been motivated to make such modification in order to allow for exclusive compatibility between interfaces without the necessity of hardware modifications (paragraph [0027]).

Applicant respectfully asks where is any "suggestion, motivation, or teaching in the prior art that would have led a person of ordinary skill in the art to":

1. "select the references"?
2. "select the teachings of [the] separate references"?
3. "combine [those teachings] in the way that would produce the claimed" subject matter?

Applicant respectfully submits that no such evidence has been presented. Thus, the present Office Action fails to establish a *prima facie* case of obviousness regarding claim 23. Accordingly, Applicant respectfully requests a withdrawal of the rejection of claim 23.

**12. Claim 24**

The combination of the applied portions of Thomas and Al-Ali do not establish a *prima facie* case of obviousness regarding claim 24. Since claim 24 depends upon independent claim 14, Applicant respectfully incorporates by reference each and every argument regarding claim 14 presented, *supra*.

*Inter alia*, claim 24 recites, yet the present Office Action fails to allege that any applied

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portion of any relied upon reference teaches, "encrypting communications between the programmable cable and the PLC."

Thus, even if there were motivation or suggestion to modify or combine the applied portions of the references relied upon in the Office Action (an assumption that is respectfully traversed), and even if there were a reasonable expectation of success in combining or modifying the applied portions of the references relied upon in the Office Action (another assumption that is respectfully traversed), the applied portions of the references relied upon in the Office Action, as **attempted to be modified and/or combined**, still do not expressly or inherently teach every limitation of the independent claims, and consequently fail to establish a *prima facie* case of obviousness. Consequently, for at least the reasons mentioned above, reconsideration and withdrawal of these rejections is respectfully requested.

The present Office Action presents **legally insufficient evidence**, of any "suggestion, motivation, or teaching in the prior art that would have led a person of ordinary skill in the art to":

1. "select the references";
2. "select the teachings of [the] separate references"; or
3. "combine [those teachings] in the way that would produce the claimed" subject matter.

Moreover, the present Office Action presents **legally insufficient evidence of anything** "in the prior art as a whole to suggest the **desirability**, and thus the obviousness, of making the **combination**."

Instead, regarding the proffered combination of Thomas and Al-Ali, the present Office Action, at Pages 10-11 recites:

[i]t would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify Thomas with the above teachings of Al-Ali. One of ordinary skill in the art would have been motivated to make such modification in order to allow for exclusive compatibility between interfaces without the necessity of hardware modifications (paragraph [0027]).

Applicant respectfully asks where is any "suggestion, motivation, or teaching in the prior

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art that would have led a person of ordinary skill in the art to”:

1. “select the references”?
2. “select the teachings of [the] separate references”?
3. “combine [those teachings] in the way that would produce the claimed” subject matter?

Applicant respectfully submits that no such evidence has been presented. Thus, the present Office Action fails to establish a *prima facie* case of obviousness regarding claim 24. Accordingly, Applicant respectfully requests a withdrawal of the rejection of claim 24.

**13. Claim 25**

The combination of the applied portions of Thomas and Al-Ali do not establish a *prima facie* case of obviousness regarding claim 25. Since claim 25 depends upon independent claim 14, Applicant respectfully incorporates by reference each and every argument regarding claim 14 presented, *supra*.

*Inter alia*, claim 25 recites, yet the present Office Action fails to allege that any applied portion of any relied upon reference teaches, “encrypting communications between the programmable cable and the user interface device.”

Thus, even if there were motivation or suggestion to modify or combine the applied portions of the references relied upon in the Office Action (an assumption that is respectfully traversed), and even if there were a reasonable expectation of success in combining or modifying the applied portions of the references relied upon in the Office Action (another assumption that is respectfully traversed), the applied portions of the references relied upon in the Office Action, **as attempted to be modified and/or combined**, still do not expressly or inherently teach every limitation of the independent claims, and consequently fail to establish a *prima facie* case of obviousness. Consequently, for at least the reasons mentioned above, reconsideration and withdrawal of these rejections is respectfully requested.

The present Office Action presents **legally insufficient evidence**, of any “suggestion, motivation, or teaching in the prior art that would have led a person of ordinary skill in the art to”:

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1. "select the references";
2. "select the teachings of [the] separate references"; or
3. "combine [those teachings] in the way that would produce the claimed" subject matter.

Moreover, the present Office Action presents **legally insufficient evidence of anything** "in the prior art as a whole to suggest the **desirability**, and thus the obviousness, of making the **combination**."

Instead, regarding the proffered combination of Thomas and Al-Ali, the present Office Action, at Pages 10-11 recites:

[i]t would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify Thomas with the above teachings of Al-Ali. One of ordinary skill in the art would have been motivated to make such modification in order to allow for exclusive compatibility between interfaces without the necessity of hardware modifications (paragraph [0027]).

Applicant respectfully asks where is any "suggestion, motivation, or teaching in the prior art that would have led a person of ordinary skill in the art to":

1. "select the references"?
2. "select the teachings of [the] separate references"?
3. "combine [those teachings] in the way that would produce the claimed" subject matter?

Applicant respectfully submits that no such evidence has been presented. Thus, the present Office Action fails to establish a *prima facie* case of obviousness regarding claim 25. Accordingly, Applicant respectfully requests a withdrawal of the rejection of claim 25.

**14. Claims 26-32**

The applied portions of Thomas do not establish a *prima facie* case of anticipation regarding claim 26. Inter alia, claim 26, upon which each of claims 27-32 depends, recites, "providing a programmable cable comprising a first end connectable to a network and a second end connectable to a network communications device, a user interface device couplable to a

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network comprising the programmable cable, a **programmable logic controller (PLC)**, and the network communications device”.

Paragraphs 23-29 of Dr. Williams’ Declaration provide expert evidence that the applied portions of Thomas do not teach “providing a programmable cable comprising a first end connectable to a network and a second end connectable to a network communications device, a user interface device couplable to a network comprising the programmable cable, a **programmable logic controller (PLC)**, and the network communications device”.

Accordingly, it is respectfully submitted that the rejection of claims 26 is unsupported by Thomas and should be withdrawn. Also, the rejection of claims 27-32, each ultimately depending from independent claim 26, is unsupported by Thomas and also should be withdrawn.

**15. Claim 27**

The combination of the applied portions of Thomas and Cisco Systems do not establish a *prima facie* case of obviousness regarding claim 27. Since claim 27 depends upon independent claim 26, Applicant respectfully incorporates by reference each and every argument regarding claim 26 presented, *supra*.

Claim 27 recites, yet the present Office Action fails to allege that any applied portion of any relied upon reference teaches “initializing the programmable cable using the user interface device through the network by setting at least one of a plurality of configuration parameters further comprising: a mode of operation, a PPI protocol, a cable locality mode, a data transfer speed, and a communication language.”

The present Office Action presents legally **insufficient evidence**, of any “suggestion, motivation, or teaching in the prior art that would have led a person of ordinary skill in the art to”:

1. “select the references”;
2. “select the teachings of [the] separate references”; or
3. “combine [those teachings] in the way that would produce the claimed” subject

*matter.*

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Moreover, the present Office Action presents **legally insufficient evidence of anything** “in the prior art as a whole to suggest the **desirability**, and thus the obviousness, of making the **combination**.”

Instead, regarding the proffered combination of Thomas and Cisco Systems, the present Office Action, at Page 8 recites:

[i]t would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify Thomas with the above teachings of Cisco Systems. One of ordinary skill in the art would have been motivated to make such modification in order to allow reduce collisions of data on network (Section: Review Questions).

Applicant respectfully asks where is any “suggestion, motivation, or teaching in the prior art that would have led a person of ordinary skill in the art to”:

1. “select the references”?
2. “select the teachings of [the] separate references”?
3. “combine [those teachings] in the way that would produce the claimed” subject matter?

Applicant respectfully submits that no such evidence has been presented. Thus, the present Office Action fails to establish a *prima facie* case of obviousness regarding claim 27. Accordingly, Applicant respectfully requests a withdrawal of the rejection of claim 27.

**16. Claim 29**

The combination of the applied portions of Thomas and Cisco Systems do not establish a *prima facie* case of obviousness regarding claim 29. Since claim 29 depends upon independent claim 26, Applicant respectfully incorporates by reference each and every argument regarding claim 26 presented, *supra*.

The present Office Action presents **no evidence regarding the additional subject matter of claim 29**, of any “suggestion, motivation, or teaching in the prior art that would have led a person of ordinary skill in the art to”:

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1. "select the references";
2. "select the teachings of [the] separate references"; or
3. "combine [those teachings] in the way that would produce the claimed" subject matter.

Thus, the present Office Action fails to establish a *prima facie* case of obviousness regarding claim 29. Accordingly, Applicant respectfully requests a withdrawal of the rejection of claim 29.

**17. Claim 30**

The combination of the applied portions of Thomas and Al-Ali do not establish a *prima facie* case of obviousness regarding claim 30. Since claim 30 depends upon independent claim 26, Applicant respectfully incorporates by reference each and every argument regarding claim 26 presented, *supra*.

*Inter alia*, claim 30 recites, yet the present Office Action fails to allege that any applied portion of any relied upon reference teaches, "encrypting communications between the user interface device and the PLC."

Thus, even if there were motivation or suggestion to modify or combine the applied portions of the references relied upon in the Office Action (an assumption that is respectfully traversed), and even if there were a reasonable expectation of success in combining or modifying the applied portions of the references relied upon in the Office Action (another assumption that is respectfully traversed), the applied portions of the references relied upon in the Office Action, **as attempted to be modified and/or combined**, still do not expressly or inherently teach every limitation of the independent claims, and consequently fail to establish a *prima facie* case of obviousness. Consequently, for at least the reasons mentioned above, reconsideration and withdrawal of these rejections is respectfully requested.

The present Office Action presents **legally insufficient evidence**, of any "suggestion, motivation, or teaching in the prior art that would have led a person of ordinary skill in the art to":

1. "select the references";

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2. "select the teachings of [the] separate references"; or
3. "combine [those teachings] in the way that would produce the claimed" subject matter.

Moreover, the present Office Action presents **legally insufficient evidence of anything** "in the prior art as a whole to suggest the **desirability**, and thus the obviousness, of making the **combination**."

Instead, regarding the proffered combination of Thomas and Al-Ali, the present Office Action, at Pages 10-11 recites:

[i]t would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify Thomas with the above teachings of Al-Ali. One of ordinary skill in the art would have been motivated to make such modification in order to allow for exclusive compatibility between interfaces without the necessity of hardware modifications (paragraph [0027]).

Applicant respectfully asks where is any "suggestion, motivation, or teaching in the prior art that would have led a person of ordinary skill in the art to":

1. "select the references"?
2. "select the teachings of [the] separate references"?
3. "combine [those teachings] in the way that would produce the claimed" subject matter?

Applicant respectfully submits that no such evidence has been presented. Thus, the present Office Action fails to establish a *prima facie* case of obviousness regarding claim 30. Accordingly, Applicant respectfully requests a withdrawal of the rejection of claim 30.

**18. Claim 31**

The combination of the applied portions of Thomas and Al-Ali do not establish a *prima facie* case of obviousness regarding claim 31. Since claim 31 depends upon independent claim 26, Applicant respectfully incorporates by reference each and every argument regarding claim 26 presented, *supra*.

*Inter alia*, claim 31 recites, yet the present Office Action fails to allege that any applied



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portion of any relied upon reference teaches, "encrypting communications between the programmable cable and the PLC."

Thus, even if there were motivation or suggestion to modify or combine the applied portions of the references relied upon in the Office Action (an assumption that is respectfully traversed), and even if there were a reasonable expectation of success in combining or modifying the applied portions of the references relied upon in the Office Action (another assumption that is respectfully traversed), the applied portions of the references relied upon in the Office Action, as **attempted to be modified and/or combined**, still do not expressly or inherently teach every limitation of the independent claims, and consequently fail to establish a *prima facie* case of obviousness. Consequently, for at least the reasons mentioned above, reconsideration and withdrawal of these rejections is respectfully requested.

The present Office Action presents **legally insufficient evidence**, of any "suggestion, motivation, or teaching in the prior art that would have led a person of ordinary skill in the art to":

1. "select the references";
2. "select the teachings of [the] separate references"; or
3. "combine [those teachings] in the way that would produce the claimed" subject matter.

Moreover, the present Office Action presents **legally insufficient evidence of anything** "in the prior art as a whole to suggest the **desirability**, and thus the obviousness, of making the **combination**."

Instead, regarding the proffered combination of Thomas and Al-Ali, the present Office Action, at Pages 10-11 recites:

[i]t would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify Thomas with the above teachings of Al-Ali. One of ordinary skill in the art would have been motivated to make such modification in order to allow for exclusive compatibility between interfaces without the necessity of hardware modifications (paragraph [0027]).

Applicant respectfully asks where is any "suggestion, motivation, or teaching in the prior

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art that would have led a person of ordinary skill in the art to”:

1. “select the references”?
2. “select the teachings of [the] separate references”?
3. “combine [those teachings] in the way that would produce the claimed” subject matter?

Applicant respectfully submits that no such evidence has been presented. Thus, the present Office Action fails to establish a *prima facie* case of obviousness regarding claim 31. Accordingly, Applicant respectfully requests a withdrawal of the rejection of claim 31.

#### 19. Claim 32

The combination of the applied portions of Thomas and Al-Ali do not establish a *prima facie* case of obviousness regarding claim 32. Since claim 32 depends upon independent claim 26, Applicant respectfully incorporates by reference each and every argument regarding claim 26 presented, *supra*.

*Inter alia*, claim 32 recites, yet the present Office Action fails to allege that any applied portion of any relied upon reference teaches, “encrypting communications between the programmable cable and the user interface device.”

Thus, even if there were motivation or suggestion to modify or combine the applied portions of the references relied upon in the Office Action (an assumption that is respectfully traversed), and even if there were a reasonable expectation of success in combining or modifying the applied portions of the references relied upon in the Office Action (another assumption that is respectfully traversed), the applied portions of the references relied upon in the Office Action, as **attempted to be modified and/or combined**, still do not expressly or inherently teach every limitation of the independent claims, and consequently fail to establish a *prima facie* case of obviousness. Consequently, for at least the reasons mentioned above, reconsideration and withdrawal of these rejections is respectfully requested.

The present Office Action presents **legally insufficient evidence**, of any “suggestion, motivation, or teaching in the prior art that would have led a person of ordinary skill in the art to”:

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1. "select the references";
2. "select the teachings of [the] separate references"; or
3. "combine [those teachings] in the way that would produce the claimed" subject matter.

Moreover, the present Office Action presents **legally insufficient evidence of anything** "in the prior art as a whole to suggest the **desirability**, and thus the obviousness, of making the **combination**."

Instead, regarding the proffered combination of Thomas and Al-Ali, the present Office Action, at Pages 10-11 recites:

[i]t would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify Thomas with the above teachings of Al-Ali. One of ordinary skill in the art would have been motivated to make such modification in order to allow for exclusive compatibility between interfaces without the necessity of hardware modifications (paragraph [0027]).

Applicant respectfully asks where is any "suggestion, motivation, or teaching in the prior art that would have led a person of ordinary skill in the art to":

1. "select the references"?
2. "select the teachings of [the] separate references"?
3. "combine [those teachings] in the way that would produce the claimed" subject matter?

Applicant respectfully submits that no such evidence has been presented. Thus, the present Office Action fails to establish a *prima facie* case of obviousness regarding claim 32. Accordingly, Applicant respectfully requests a withdrawal of the rejection of claim 32.

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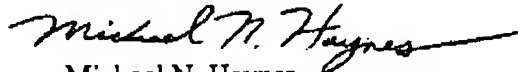
**CONCLUSION**

It is respectfully submitted that, in view of the foregoing amendments and remarks, the application as amended is in clear condition for allowance. Reconsideration, withdrawal of all grounds of rejection, and issuance of a Notice of Allowance are earnestly solicited.

The Office is hereby authorized to charge any additional fees or credit any overpayments under 37 C.F.R. 1.16 or 1.17 to Deposit Account No. 50-2504. The Examiner is invited to contact the undersigned at 434-972-9988 to discuss any matter regarding this application.

Respectfully submitted,

Michael Haynes PLC



Michael N. Haynes  
Registration No. 40,014

Date: 8 August 2006

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